

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

IN THE MATTER OF:)
) NOTICE OF VIOLATION
Murphy Oil USA Inc.,)
Superior, Wisconsin) EPA-5-00-WI-10
)
PROCEEDING PURSUANT TO SECTION)
113(a) OF THE CLEAN AIR ACT, AS)
AMENDED, 42 U.S.C. § 7413(a).)
_____)

STATUTORY AUTHORITY

This Notice of Violation is issued pursuant to Section 113(a)(1) of the Clean Air Act ("CAA"), 42 U.S.C. § 7413(a)(1). You are hereby notified that the Administrator of the United States Environmental Protection Agency ("U.S. EPA"), by authority duly delegated to the undersigned, finds that Murphy Oil USA Inc., ("Murphy"), is in violation of Part C of the CAA, the Prevention of Significant Deterioration ("PSD") standards set forth at 40 C.F.R. § 52.21 and the Wisconsin State Implementation Plan ("SIP").

REGULATORY BACKGROUND:

1. On June 19, 1978, U.S. EPA promulgated PSD regulations pursuant to Part C of the Act. (45 Federal Register 27561). The PSD regulations were revised on August 7, 1980. (45 Federal Register 52676). These regulations are codified at 40 C.F.R. § 52.21 et seq.
2. On January 29, 1981, pursuant to 40 C.F.R. § 52.21(a), U.S. EPA incorporated and made part of the applicable Wisconsin SIP the Federal PSD regulations in 40 C.F.R. § 52.21, with enforcement authority vested in both Wisconsin Department of Natural Resources ("WDNR") and U.S. EPA.
3. The PSD regulations found at 40 C.F.R §§ 52.21(b) through (w), and any subsequent revisions, are incorporated into the Wisconsin SIP at 46 Federal Register 9585 (January 29, 1981). 40 C.F.R. §§ 52.21(a) and 52.2581.
4. Pursuant to 40 C.F.R. § 52.21(u), on November 13, 1987, U.S. EPA delegated its responsibility for conducting "source review" under the PSD regulations to the State of Wisconsin. U.S. EPA, however, retained separate authority to enforce the Act and the implementing regulations with respect to PSD. 53 Fed. Reg. 18983-18985 (1988).

5. In a National Ambient Air Quality Standards ("NAAQS") attainment area, 40 C.F.R. § 52.21(i)(1) prohibits construction of a major stationary source, or major modification, without a permit to construct issued pursuant to PSD regulations.
6. A major source includes any of the 28 designated industrial source categories listed under 40 C.F.R. § 52.21(b)(1)(i)(a) which emits, or has the potential to emit, 100 tons per year ("tpy") of any pollutant subject to regulation under the Act. The list of designated source categories includes petroleum refineries.
7. A major modification means any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act., 40 C.F.R. § 52.21(b)(2)(i).
8. A net emissions increase is defined as the sum of: any increase in actual emissions from a particular physical change or change in method of operation at a stationary source, and any other increases and decreases in actual emissions at the source that are contemporaneous with a particular change and are otherwise creditable. 40 C.F.R. § 52.21(b)(3)(i).
9. In reference to sulfur dioxide (SO₂), significant net emissions means an emissions rate of 40 tons or more per year. 40 C.F.R. § 52.21(b)(23)(i).

FINDING OF VIOLATION

10. Murphy owns and operates a Sulfur Recovery Unit (SRU) in its refinery in Superior Wisconsin.
11. In 1988 Murphy replaced and enlarged the primary burner/combustion chamber of the SRU.
12. At the time of the replacement Murphy was a major source for SO₂ because it emitted more than 100 tpy of SO₂. 40 C.F.R. § 52.21(b)(1)(i)(a).
13. U.S. EPA, Region 5 believes that the 1988 modification of the SRU increased the SO₂ emissions from the SRU by more than 40 tpy.
14. Any physical or operational change of a major source resulting in an emission rate of more than the significant net emissions increase is considered a major modification to a major source under 40 C.F.R. § 52.21(b)(2)(i). Therefore the SRU is subject to PSD rules.
15. 40 C.F.R. § 52.21(i) requires that a facility obtain a PSD permit to construct a "major modification" or a "major new source."
16. Since Murphy did not obtain a PSD permit nor did they apply Best Available Control Technology (BACT) at the SRU for the increase of the SRU emissions, Murphy is in violation of 40 C.F.R. § 52.21(i).
17. In 1991 and 1992 again Murphy undertook a major modification of the SRU and the Distillate Hydrotreater identified as the No. 2 DUF that included:


- The heat recovery unit was replaced with a unit that did not contain the circulating amine fluid;
 - A new and enlarged sulfur pit was build with deeper seal legs;
 - The hot gas bypass heating was replaced;
 - The condenser surface area was enlarged;
 - The Sour Water Stripper (SWS) gas was brought into the sulfur plant;
 - A new amine tower was built to separate hydrogen and hydrogen sulfide;
 - The No. 2 DUF reactor size was increased; and
 - An SO₂ Continuous Emission Monitor was installed in the SRU.
18. At the time of the 1991 and 1992 modifications, Murphy was a major source for SO₂ because it emitted more than 100 tpy of SO₂. 40 C.F.R. § 52.21(b)(1)(i)(a).
 19. U.S. EPA, Region 5, believes that the 1991 modification of the SRU, and the 1992 modification of the No. 2 DUF, increased the SO₂ emissions from the SRU by more than 40 tpy.
 20. Any physical or operational change of a major source resulting in an emission rate of more than the significant net emissions increase is considered a major modification to a major source under 40 C.F.R. § 52.21(b)(2)(i). Therefore the SRU is subject to PSD rules.
 21. 40 C.F.R. § 52.21(i) requires that a facility obtain a PSD permit to construct a "major modification" or a "major new source."
 22. Since Murphy did not obtain a PSD permit nor did they apply BACT at the SRU for the increase of the SRU emissions, Murphy is in violation of 40 C.F.R. § 52.21(i).

FINDING OF VIOLATION

The Administrator of the U.S. EPA, by authority duly delegated to the undersigned, notified the State of Wisconsin and Murphy Oil USA Inc., that the facility described above is in violation of the federally enforceable PSD regulations found at 40 C.F.R. § 52.21, and the Wisconsin SIP as set forth in this Notice of Violation.

3/30/00

 Date



 Bharat Mathur, Director
 Air and Radiation Division

CERTIFICATE OF MAILING

I, Shanee Rucker, certify that I sent a Notice of Violation, No. EPA-5-00-WI -10, by certified Mail, Return

Receipt Requested, to:

Greg Neve, Plant Manager
Murphy Oil USA, Inc.
P.O. Box 2066
Superior, Wisconsin 54880

I also certify that I sent Copies of the Notice of Violation by first class mail to:

Lloyd Eagan, Director
Bureau of Air Management
Wisconsin Department of Natural Resources
P.O. Box 7921
101 South Webster Street
Madison, Wisconsin 53707

Mark Stokstad, Regional Leader
Northern Region
Wisconsin Department of Natural Resources
107 Sutliff Avenue
Rhinelander, Wisconsin 54501

on the 4th day of April, 2000.



Shanee Rucker, Secretary
AECAS, (MI/WI)
(312) 86606086

CERTIFIED MAIL RECEIPT NUMBER : 2199026500